AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application.

1. (currently amended) A particle for animal feed for a ruminant, said particle comprising a core, a first layer surrounding the core, and a second layer surrounding the first layer and distinct from said first layer, said core comprising choline chloride in the form of a dry, crystalline powder and a binder, ~~said core mainly consisting of choline chloride in the form of a dry, crystalline powder,~~ the layers together being effective to protect the choline chloride from ruminal activity while allowing effective release of the choline chloride into the post-rumen portion of the digestive tract of the ruminant, the first layer consisting essentially of a hydrophobic substance selected from the group consisting of vegetable oils, hydrogenated vegetable oils, stearic acid and mixtures thereof, said first layer providing effective protection of the choline chloride from moisture, the second layer ~~mainly~~ consisting essentially of carnauba wax, said second layer being effective to protect the core and the first layer from degradation from abrasion, pressure and mechanical and thermal stress encountered during mixing and pelletization of said particles into an animal feed pellet.

2. (previously presented) The particle of claim 1, wherein the dry, crystalline powder of choline chloride is composed of micronized crystals having a predetermined distribution of particle size.

3. (previously presented) The particle of claim 2, wherein the average particle size of the micronized crystals ranges from 100 micrometers to 300 micrometers.

4. (previously presented) The particle of claim 2, wherein the average particle size of the micronized crystals is 200 micrometers.

5. (previously presented) The particle of claim 1, wherein the amount of dry, crystalline powder of choline chloride in the core ranges from 80% to 95% by weight of the core.

6. (previously presented) The particle of claim 1, wherein the amount of dry, crystalline powder of choline chloride in the core ranges from 85% to 90% by weight of the core.

7. (previously presented) The particle of claim 1, wherein the core further comprises a predetermined amount of a flow modifier.

8. (cancelled)

9. (previously presented) The particle of claim 7, wherein the flow modifier comprises one or more compounds selected from the family of silicates.

10. (previously presented) The particle of claim 9, wherein the flow modifier comprises one or more compounds selected from the group of alluminosilicates.

11. (previously presented) The particle of claim 7, wherein the flow modifier comprises one or more compounds selected from the group consisting of zeolites, silica, and perlite.

12. (previously presented) The particle of claim 7, wherein the amount of flow modifier in the core ranges from 3% to 8% by weight of the core.

13. (previously presented) The particle of claim 7, wherein the amount of flow modifier in the core is equal to 3% by weight of the core.

14. (previously presented) The particle of claim 7, wherein the amount of flow modifier in the core is equal to 8% by weight of the core.

15. (previously presented) The particle of claim 1, wherein the binder acts as a moisture barrier.

16. (previously presented) The particle of claim 15, wherein the binder comprises one or more compounds selected from the family of stearates.

17. (previously presented) The particle of claim 16, wherein the binder comprises one or more compounds selected from zinc stearate, magnesium stearate and calcium stearate.

18. (previously presented) The particle of claim 1, wherein the amount of binder in the core is equal to 7% by weight of the core.

19. (cancelled)

20. (previously presented) The particle of claim 1, wherein: the core contains 90% by its weight of dry crystalline choline chloride in the form of micronized crystals, the remaining 10% by weight of the core being composed of a flow modifier consisting of silica in an amount of 3% by weight of the core and by the binder acting as a moisture barrier consisting of calcium stearate in an amount of 7% by weight of the core; the core representing 39.0% by weight of the final particle; the first and second layers together representing 61.0% by weight of the final particle; the first layer is composed solely by hydrogenated soybean oil as hydrophobic substance; the second layer is completely composed by carnauba wax; the first layer represents 60% by weight of the two layers and 36.6% by weight of the final particle; the second layer represents 40% by weight of the two layers, and 24.4% by weight of the final particle; the final particle having a particle size ranging from 400 micrometers to 1200 micrometers.

21. (previously presented) The particle of claim 1, wherein: the core contains 90% by its weight of dry crystalline choline chloride in the form of micronized crystals, the remaining 10% by weight of the core being composed of a flow modifier consisting of silica in an amount of 3% by weight of the core and by the binder acting as a moisture barrier consisting of calcium stearate in an amount of 7% by weight of the core; the core representing 44.2% by weight of the final particle; the first and second layers together representing 55.8% by weight of the final particle; the first layer is composed solely by hydrogenated soybean oil as hydrophobic substance; the second layer is composed solely by carnauba wax; the first layer represents 55% by weight of the two layers and 30.7% by weight of the final particle; the second layer represents 45% by weight of the two layers, and 25.1% by weight of the final particle; the final particle having a particle size ranging from 200 micrometers to 1000 micrometers.

22. (previously presented) The particle of claim 1, wherein the amount of choline chloride in the core is greater than or equal to 80% by weight of the core.

23. (previously presented) The particle of claim 1, wherein the amount of choline chloride in the core is equal to 85% by weight of the core.

24. (previously presented) The particle of claim 1, wherein the amount of choline chloride in the core ranges from 99% to 90% by weight of the core.

25. (previously presented) The particle of claim 1, wherein the amount of choline chloride in the core ranges from 98% to 92% by weight of the core.

26. (previously presented) The particle of claim 1, wherein the amount of choline chloride in the core is 93% by weight of the core.

27. (previously presented) The particle of claim 1, wherein the core has a weight ranging from 30% to 70% by weight of the whole particle.

28. (previously presented) The particle of claim 1, wherein the core has a weight ranging from 40% to 50% by weight of the whole particle.

29. (previously presented) The particle of claim 1, wherein the amount of carnauba wax in the second layer ranges from 80% to 100% by weight of the second layer itself.

30. (previously presented) The particle of claim 1, wherein the amount of carnauba wax in the second layer ranges from 90% to 95% by weight of the second layer itself.

31. (previously presented) The particle of claim 1, wherein the second layer further comprises a predetermined amount of a rigidity controlling agent to control the rigidity of the second layer.

32. (previously presented) The particle of claim 31, wherein the predetermined amount of the rigidity controlling agent is lower than or equal to 20% by weight of the second layer.

33. (previously presented) The particle of claim 31, wherein the predetermined amount of the rigidity controlling agent ranges from 5% to 10% by weight of the second layer.

34. (previously presented) The particle of claim 31, wherein the rigidity controlling agent is a plasticizer.

35. (previously presented) The particle of claim 31, wherein the rigidity controlling agent comprises one or more lipids.

36. (previously presented) The particle of claim 35 wherein the one or more lipids are selected from the family of vegetable oils.

37. (previously presented) The particle of claim 35 wherein the one or more lipids are selected from the group consisting of palm oil and soybean oil.

38. (previously presented) The particle of claim 35 wherein at least one of the one or more lipids is a hydrogenated vegetable oil.

39. (previously presented) The particle of claim 31, wherein the core further comprises a predetermined amount of a flow modifier.

40. (cancelled)

41. (previously presented) The particle of claim 39, wherein the binder acts as a moisture barrier.

42. (cancelled)

43. (previously presented) The particle of claim 39, wherein: the core contains 90% by its weight of dry crystalline choline chloride in the form of micronized crystals, the remaining 10% by weight of the core being composed of a flow modifier constituted by silica in an amount of 3% by weight of the core and by the binder acting as a moisture barrier constituted by magnesium stearate in an amount of 7% by weight of the core; the core representing 45.50% by weight of the final particle; the first and second layers together representing 54.50% by weight of the final particle; the first layer being composed solely by hydrogenated palm oil as hydrophobic substance; the second layer being composed by carnauba wax in an amount of 90% by weight of the second layer and by soybean oil as a rigidity controlling agent in an amount of 10% by weight of the second layer; the first layer representing 70% by weight of the two layers and 38.15% by weight of the final particle; the second layer representing 30% by weight of the two

layers, and 16.35% by weight of the final particle; the final particle having a particle size ranging from 300 micrometers to 1200 micrometers.

44. (previously presented) The particle of claim 39, wherein: the core contains 85% by its weight of dry crystalline choline chloride in the form of micronized crystals, the remaining 15% by weight of the core being composed of a flow modifier comprising perlite and silica, respectively in an amount of 3% and 5% by weight of the core, and by the binder acting as a moisture barrier constituted by calcium stearate in an amount of 7% by weight of the core; the core representing 47.2% by weight of the final particle; the first and second layers together representing 52.8% by weight of the final particle; the first layer being composed solely by hydrogenated soybean oil as hydrophobic substance; the second layer being composed by carnauba wax in an amount of 90% by weight of the second layer and by palm oil as a rigidity controlling agent in an amount of 10% by weight of the second layer; the first layer representing 55% by weight of the two layers and 29.0% by weight of the final particle; the second layer representing 45% by weight of the two layers, and 23.8% by weight of the final particle; the final particle having a particle size ranging from 400 micrometers to 1200 micrometers.

45. (previously presented) The particle of claim 39, wherein: the core contains 85% by its weight of dry crystalline choline chloride in the form of micronized crystals, the remaining 15% by weight of the core being composed of a flow modifier comprising perlite and silica, respectively in an amount of 3% and 5% by weight of the core, and by the binder acting as a moisture barrier consisting of calcium stearate in an amount of 7% by weight of the core; the core representing 47.75% by weight of the final particle; the first and second layers together representing 52.25% by weight of the final particle; the first layer being composed solely by hydrogenated soybean oil as hydrophobic substance; the second layer being composed by carnauba wax in an amount of 95% by weight of the second layer and by palm oil in an amount of 5% by weight of the second layer; the first layer representing 50% by weight of the two layers and 26.125% by weight of the final particle; the second layer representing 50% by weight of the two layers, and 26.125% by weight of the final particle; the final particle having a particle size ranging from 400 micrometers to 1200 micrometers.

46. (previously presented) The particle of claim 1, wherein the second layer constitutes a percentage by weight of the two layers which ranges from 30% to 60%.

47. (previously presented) The particle of claim 1, wherein the second layer constitutes a percentage by weight of the two layers which ranges from 45% to 55%.

48. (previously presented) The particle of claim 1, wherein the first layer constitutes a percentage by weight of the two layers which ranges from 40% to 70%.

49. (previously presented) The particle of claim 1, wherein the first layer constitutes a percentage by weight of the two layers which ranges from 45% to 55%.

50-51. (cancelled)

52. (previously presented) The particle of claim 1 wherein the hydrophobic substance is selected from the group consisting of palm oil and soybean oil.

53-54. (cancelled)

55. (previously presented) The particle of claim 1, wherein the two layers constitutes a percentage by weight of the whole particle which ranges from 30% to 70%.

56. (previously presented) The particle of claim 1, wherein the two layers constitutes a percentage by weight of the whole particle which ranges from 50% to 60%.

57. (currently amended) A feed pellet containing a particle as claimed in ~~anyone~~ any one of claims 1-7, 9-18, 20-39, 41, 43-49, 52 and 55-56.

58. (previously presented) A premix for feed containing a particle as claimed in any one of claims 1-7, 9-18, 20-39, 41, 43-49, 52 and 55-56.

59. (previously presented) Mash feed in unpelletted form, containing a particle as claimed in any one of claims 1-7, 9-18, 20-39, 41, 43-49, 52 and 55-56.